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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,574	08/14/2000	Ryan Middleton	TI-28458	1734

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EXAMINER

NATNAEL, PAULOS M

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 01/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/639,574

Applicant(s)

MIDDLETON ET AL.

Examiner

Paulos M. Natnael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1,4,6-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Rosengren et al., U.S. Pat. No. 6,041,068.

a) a television broadcast transmitter including means for generating and transmitting

Uncompressed Broadcast
main television signals and separate ancillary television signals with a separate

television show segment related to said main signals, is met by Television transmitter,

Fig.5, which comprises the Demultiplexer 50 which "selects an elementary video stream Vm from which an ancillary signal Va is to be derived." (col. 4, lines 49-50)

; see also col.3, lines 59-61)

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b) a television receiver system for receiving said main signals and for receiving and storing in a cache memory the ancillary television signals including the separate television show segment, is met by the Picture in Picture receiver, fig. 6; (see also Figs.1 and 3 as well as col. 3, lines 59-61)

c) selective means at the television receiver for providing either the main signals or the ancillary television signals with the separate television show segment to a display of said television receiver, is met by the Video switch 77, Fig.7, which selects one of the video signals Vi and Vj. (see col. 5, lines 44-50)

Considering claim 4, the system of claim 1 wherein said television signals are transmitted over a digital television channel subdivided into several subchannels of multiplexed signals and wherein one of said subchannels contains said main television signals and the other sub-channels provide the ancillary signals;

Regarding claim 4, see rejection of claim 1.

Considering claim 6, wherein said separate ancillary signal contains short television signal segments related to the main signals, and said cache stores said segments and said main signals and contains control data providing means for removing and storing

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said segments and said receiver system includes means responsive to said control data for storing and removing said short segments from said cache;

Regarding claim 6, see rejection of claim 1;

Considering claim 7, the system of Claim 1 wherein said ancillary signals include ancillary data and command and control signals is met by the program specific information transmitted from the transmitter and decoded by the decoder to specify the presence of the ancillary elementary video stream... etc. (see col. 4, lines 32-43)

Considering claim 8, wherein said main signals are data compressed signals and the ancillary signals are in the sideband channels between said main signals, is met by the disclosure that a device for deriving an ancillary signal from a compressed digital video signal (e.g. MPEG) wherein the ancillary signal includes selected part of the main signal...(see abstract).

Considering claim 9, the system of Claim 1 wherein said main signals are data compressed segments and the ancillary signals are in the sidebands between said main signals.

Regarding claim 9, see rejection of claim 8.

Considering claim 10, wherein said main signals and ancillary signals are different parts of a high definition television channel;

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Regarding claim 10, see rejection of claim 8 and see the Abstract.

Considering claim 11, means for switching between high definition television channel and one standard television sub-channel and an ancillary sub-channel.

Regarding claim 11, see rejection of claims 1(c).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rosengren**, U.S. Pat. No. 6,041,068 in view of **Yuen et al.** U.S. Pat. No. 6,452,640.

Considering claim 2, the claimed means for generating an icon on a television receiver display indicating the presence of the stored ancillary signals and means at the television receiver for accessing said stored ancillary signal in said cache memory using said icon.

Regarding claim 2, Rosengren does not specifically disclose an icon that would be displayed on screen of the TV to indicate the presence of an ancillary signal. However, such a method or feature is well known in the art. Yuen et al disclose for a sound bite augmentation device where an audio description of a television program, i.e., a sound bite, is reproduced simultaneously with the display of the program at the television receiver. Yuen specifically teaches an icon display on the screen to indicate the presence of a sound bite as shown in Figs. 4 and 5. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system

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of Rosengren by providing an icon to indicate the presence of stored ancillary signals in memory so that the viewer would have the choice to view or check the ancillary signals in order to decide whether to order or purchase a program or movie by previewing the ancillary signal, for instance, instead of ordering the full program or service.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rosengren**, U.S. Pat. No. 6,041,068 in view of **Dougherty** et al., U.S. Pat. No. 5,737,025.

Considering claim 3, wherein said ancillary signal is broadcasted in the vertical blanking interval of the main signal and said receiver receives the ancillary signal during the vertical blanking interval

Regarding claim 3, Rosengren does not disclose broadcasting in the vertical blanking interval. However, broadcasting in the vertical blanking interval (VBI) is notoriously well known in the art. **Dougherty** et al discloses co-channel transmission of program signals and ancillary signals using the VBI of the video signal. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Rosengren by providing the notoriously well known VBI transmission method of Dougherty et al in order to transmit ancillary signal on the VBI so that the system of Rosengren is made more flexible, thus, useful to the user.

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6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rosengren**, U.S. Pat. No. 6,041,068.

Considering claim 5, wherein said main sub-channel carries the control data for commands for updating by removing old sub-channel segments and storing new ones.

Regarding claim 5, Rosengren does not disclose whether the control data for commands for updating by removing old sub-channel segments and storing new ones. However, the Examiner takes Official Notice in that, as the specification for the ATVEF standard stipulates, it is well known in the art to send command/control signals using lines in the Vertical Blanking Interval (VBI) to manage the cache, and it is also well known in the art to update systems (storage or otherwise) by removing/deleting old video/audio segments and replacing it with new segments or parts. Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Rosengren using the teaching of the ATVEF specification and the prior art in order to give the user an advantage of efficient use and flexibility in storage systems.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Carr, U.S. Patent No. 6,557,172 discloses a communication enhancement data in layers, which utilizes the ATVEF standard protocol for transmission of ancillary information with content that includes audio data or video data.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-HELP.



PAULOS M. NATNAEL
PATENT EXAMINER

PMN
January 25, 2004